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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,488	02/05/2004	Robert S. Cooper	114.0007	4984
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PRIEST & GOLDSTEIN PLLC 5015 SOUTHPARK DRIVE SUITE 230 DURHAM, NC 27713-7736			EXAMINER KOVACEK, DAVID M	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 01/10/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/772,488

Applicant(s)

COOPER ET AL.

Examiner

David Kovacek

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Amendment and Remarks submitted by the applicant in which the applicant amended the specification, drawings, and claims of the instant application and provides arguments for patentability with regard to the previous Office Action.

Response to Amendment

2. The amendments to the drawings, submitted 11/07/2007, including the renumbering of an element in Figure 1, have been considered and are accepted.

3. The amendments to the specification, submitted 11/07/2007, including the inclusion of the serial number of a commonly assigned US Patent incorporated by reference, have been considered and are accepted.

4. The amendments to the claims, submitted 11/07/2007, including additions to the prior limitations of **claims 1, 8, and 12**, have been considered and are accepted. It is noted by the examiner that these amendments narrow the scope of the claims and all dependent claims. It is further noted that though these amended claims have been accepted, this is not an indication of their allowability in view of the prior art.

Response to Arguments

5. Applicant's arguments filed 11/07/2007 regarding **claims 1, 8 and 12** have been fully considered but they are not persuasive.

Regarding **claim 1**, the applicant argues that the teachings of Hennecke (US Patent Application Publication 2004/0034527), cited in the previous Office Action are insufficient to anticipate the limitations of the instant application because Hennecke does not adequately disclose the creation of a list of candidate matches which is later changed based on past recognition results. Therefore, the applicant argues that the teachings of Hennecke are insufficient to anticipate **claim 1** under 35 U.S.C. 102(e).

The examiner has noted this insufficiency, which was in fact noted in the previous Office Action by providing an alternative rejection of **claim 1** under 35 U.S.C. 103(a), and withdraws the previous rejection under 35 U.S.C. 102(e).

However, the applicant further argues that the combination of Hennecke and Robinson (Great Britain Patent GB2375211), listed in the IDS, neither anticipates nor renders all limitations of **claim 1**.

The applicant specifically contends that Robinson is directed to actions analogous to the initial assembly of the results list of **claim 1**, rather than adjustment of the list once created. It is noted by the examiner that Robinson in fact makes specific mention of "updating the system without taking the system down" (Page 19, lines 11-12) as a result of the repository being "dynamically accessed and modified by multiple sources even when active users are on-line" (Page 19, lines 02-04). Therefore, the examiner contends that

the disclosure of Robinson in fact *requires* the adjustment of a created list [repository] of potential recognition results, and that the applicant's argument is not convincing.

Similarly, the applicant argues that the teachings of Robinson are more directed toward overall refinement of a system, rather than to addressing any one recognition attempt. However, Robinson further states, "The adaptation can be made specific to a particular caller, or can be applied to the system as a whole," which in the former context includes the adaptation made for a single recognition attempt in the instance of a one-time caller to the system.

For these reasons, the previous rejection of **claim 1** under 35 U.S.C. 103(a) is maintained. It is noted by the examiner that though **claim 1** has been amended in a manner that further limits the scope of the original claim, the examiner contends that the previous rejection is still applicable. The rejection has been summarized below in the proper sections of this Office Action for convenience.

The examiner further notes that similar arguments are used in the remarks regarding the potential patentability of **claims 8 and 12**. Therefore, the previous rejections of these claims under 35 U.S.C 103(a) are maintained for the same reasons. The rejections have been summarized below in the appropriate sections of this Office Action for convenience.

It is noted by the examiner that no other arguments are presented regarding the patentability of any claims of the instant application. Therefore, the previous rejections of all claims dependent upon **claims 1, 8 and 12** are repeated below in the appropriate sections of this Office Action as appropriate.

Claim Rejections - 35 USC § 103

6. **Claims 1-2, 8-10, and 12-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hennecke in view of Robinson.

Regarding **claim 1**, Hennecke discloses a voice recognition system comprising:

- a plurality of voice activated modules [speech recognition units] for receiving voice recognition results representing voice inputs from a user and taking actions in response to the voice inputs (Page 1, paragraph 0015);
- a voice recognition module for receiving voice inputs from a user and performing voice recognition on the voice inputs, performing voice recognition on a voice input comprising identifying members of a collection of elements representing potential matches to the voice input, the voice recognition module being operative to prepare a list of potential voice recognition results for a voice input under consideration [sub-list, vocabulary], each of the potential voice recognition results representing a candidate [list element] for a result matching the voice input received from the user (Fig. 1, elements 6-8, Page 1, paragraphs 0009-0010);

- a results postprocessor for processing the list of potential voice recognition results to improve speed and accuracy of voice recognition (Fig. 1, element 7; Page 2, paragraph 0020; Page 3, paragraph 0028)

Hennecke does not adequately disclose, but Robinson does disclose features of a speech recognition system including:

- the results postprocessor being operative to make changes to the list [run time repository] based on information relating to past results of recognition attempts (Page 18, line 32 – Page 19, line 04; Page 19, lines 08-16)
- in order to associate a higher priority [probability-of-use] with members of the list having a higher likelihood of matching the voice input under consideration as indicated by the past results of recognition attempts (Page 20, lines 14-20).

The two references are combinable because each is directed to a system for speech recognition that features a dynamically updated vocabulary.

Robinson further provides motivation to combine in disclosing the need for custom-tailoring the voice recognition system to the particular speech patterns of the user to increase accuracy and reliability with repeated use (Page 12, lines 2-4; Page 12, lines 13-17).

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of

Hennecke using the teachings of Robinson to improve the recognition process by personalizing the system to individual users.

Regarding **claim 2**, Hennecke in view of Robinson discloses all limitations of **claim 1** as applied above, and Robinson further discloses making changes to the results list based on previously stored information relating to expected user actions (Abstract; Page 4, lines 4-6; Page 19, lines 12-15; Page 20, lines 14-20).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 1**, the same motivation for combination is applicable.

Regarding **claim 8**, Hennecke discloses a results postprocessor for voice recognition comprising:

- a repository of information relating to a current voice recognition attempt (Fig. 1, item 4; Page 1, paragraph 0015; Page 2, paragraph 0020); and
- a processing module for processing potential voice recognition results in a result list, the voice recognition results representing members of a collection of elements representing potential matches to a voice

input under consideration in a current voice recognition attempt (Fig. 1, item 7; Page 2, paragraph 0020; Page 3, paragraph 0028).

Hennecke does not adequately disclose, but Robinson discloses a speech recognition system featuring:

- the processing module being operative to examine the information in the repository relating to the current voice recognition attempt and to make changes to a results list compiled in response to a voice input, the changes being made based on the information stored in the repository (Page 20, line 23 – Col. 21, line 05),
- the changes associating a higher priority with results in the results list that are indicated to have a higher priority of matching the voice input based on information in the repository relating to characteristics of elements of the data collection (Page 20, lines 14-20).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 1**, the same motivation for combination is applicable.

Regarding **claim 9**, Hennecke in view of Robinson discloses all limitations of **claim 8** as applied above, and Hennecke further discloses a results list that does not

include results rejected previously (Page 4, paragraph 0034; Fig. 1, item 8). Robinson further discloses the ability to access and modify the results list at run time (Page 18, line 32 – Page 19, line 4; Page 20, line 23 – Page 21, line 5).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 8**, the same motivation for combination is applicable.

Regarding **claim 10**, Hennecke in view of Robinson discloses all limitations of **claim 9** as applied above, and Robinson further discloses the capability to retrieve user and historical information and to make changes to the results list based on the user and historical information (Abstract; Page 4, lines 4-6; Page 19, lines 12-15).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 9**, the same motivation for combination is applicable.

Regarding **claim 12**, this claim is very similar to limitations found in **claims 1 and 2**, and is rejected for the same reasons.

Regarding **claim 13**, Hennecke in view of Robinson discloses all limitations of **claim 12** as applied above, and Hennecke further discloses a second results list formed

without including rejected results of a voice recognition transaction (Page 3, paragraph 0028; Page 4, paragraph 0034).

Regarding **claim 14**, Hennecke in view of Robinson discloses all limitations of **claim 13** as applied above, and Robinson further implies the step of reordering [dynamically modify] the results list based on information relating to past recognition attempts (Page 18, line 32 – Page 19, line 4).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 12**, the same motivation for combination is applicable.

Regarding **claim 15**, Hennecke in view of Robinson discloses all limitations of **claim 14** as applied above, and Robinson further discloses changing of the results list based on information relating to a user engaging in a current voice recognition transaction (Page 20, line 23 – Page 21, line 5).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 14**, the same motivation for combination is applicable.

7. **Claims 3-7, 11 and 16** rejected under 35 U.S.C. 103(a) as being unpatentable over Hennecke in view of the admitted prior art as applied to **claims 1-2, 8-10, and 12-**

15 above, and further in view of Chang (US Patent Application Publication 2003/0091028), cited in the previous Office Action.

Regarding **claim 3**, Hennecke in view of Robinson teaches all limitations of **claim 2** as above. Robinson additionally suggests the inclusion of contact data to be accessible (Figure 1; Page 6, lines 27-29), but does not explicitly disclose a likely contact cache including entries for contacts the user is estimated to be likely to call.

Chang discloses the use of a voice controlled communication system that includes a list of likely contacts (Page 21, paragraph 0201; Page 24, paragraph 0246).

The references are inherently related because Chang teaches a system requiring functionality that can be implemented using the teachings of Hennecke in view of Robinson.

Robinson provides motivation to combine in disclosing the need for custom-tailoring the voice recognition system to the particular speech patterns of the user to increase accuracy and reliability with repeated use (Page 12, lines 2-4; Page 12, lines 13-17).

Chang further provides motivation in disclosing the usefulness of a communications system that utilizes an Internet protocol network (Page 1, paragraphs 0006 – 0009).

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Chang using the teachings of Hennecke in view of Robinson to implement a voice-

controlled communications system that utilizes an Internet Protocol network and is customized to the speech patterns of individual users with repeated use.

Regarding **claim 4**, Hennecke in view of Robinson in further view of Chang discloses all limitations of **claim 3** as applied above, and Robinson further implies reordering the results list [dynamically modifying] based on information relating to past recognition attempts (Page 18, line 32 – Page 19, line 4).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 3**, the same motivation for combination is applicable.

Regarding **claim 5**, Hennecke in view of Robinson in further view of Chang discloses all limitations of **claim 4** as applied above, and Robinson further discloses that the information relating to past results of recognition attempts includes information relating to a current recognition transaction (Page 18, line 32 – Page 19, line 4; Page 20, line 23 – Page 21, line 5).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 3**, the same motivation for combination is applicable.

Regarding **claim 6**, Hennecke in view of Robinson in further view of Chang discloses all limitations of **claim 5** as applied above, and Hennecke further discloses a

second results list formed without including rejected results of a voice recognition transaction (Page 3, paragraph 0028; Page 4, paragraph 0034).

Regarding **claim 7**, Hennecke in view of Robinson in further view of Chang discloses all limitations of **claim 6** as applied above, and Robinson further discloses the adaptation of voice recognition operation based upon parameters from a current voice recognition attempt (Page 18, line 32 – Page 19, line 4; Page 20, lines 8-16; Page 20, line 22 – Page 21, line 5).

Because this limitation, as disclosed by Robinson, is directly related to the limitations addressed by Robinson above in **claim 5**, the same motivation for combination is applicable.

Regarding **claim 11**, Hennecke in view of Robinson teaches all limitations of **claim 10** as applied above, but does not explicitly disclose a likely contact cache that is updated in response to user voice input.

Chang further discloses a likely contact cache including contacts the user is likely to call (Page 24, paragraph 0201; Page 29, paragraph 0246).

Robinson further implies reordering [dynamically modifying] the results list based on information relating to past recognition attempts (Page 18, line 32 – Page 19, line 4).

Because this limitation, as disclosed by Chang, is directly related to the limitations addressed by Chang above in **claim 3**, the same motivation for combination is applicable.

Regarding **claim 16**, this claim is very similar to **claim 11** and is rejected for the same reasons.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


9. Please note that though the examiner providing signatory authority for this action has changed, the examination has been performed by the same examiner throughout prosecution.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Kovacek whose telephone number is (571) 270-3135. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DMK 01/04/2007



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PRIMARY EXAMINER